### Wzzard™ Mesh Gen2 Starter Bundle

# **HVAC Monitoring Kit**

Model BB-WSK-HAC-2







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Documentation Number: pn2003BHAC00-r1\_BB-WSK-HAC-2\_1319m

## HVAC MONITORING KIT

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### HVAC MONITORING STARTER KIT

#### Kit Model BB-WSK-HAC-2

The Wzzard<sup>™</sup> HVAC Monitoring Application provides a non-intrusive, easily installed solution for monitoring current and differential temperature on your HVAC equipment without disrupting your existing facility operations. Data can be exported to Dropbox for further analysis. Email or text message alerts can be sent when user-configured high or low limits are exceeded in critical applications.

Installation costs are kept low using the Wzzard wireless sensing platform. The platform creates a self-forming, self-healing wireless mesh network that eliminates the need for wires and requires no special skills to install. Each Wzzard sensor node is powered by long life batteries.

Using Node-RED<sup>™</sup>, a simple, browser based application preinstalled on the gateway, you can monitor current draw from any web browser on your network.

#### The contents of the kit include:

Qty 1	BB-WSD2C21150	2 analog-in + 2 J-Type thermocouple inputs Wzzard node
Qty 2	BB-JC10F50-V	50A clamp on current sensor
Qty 2	BB-WTJ-10-36-TT	J-type thermocouple, #10 mounting hole, ungrounded
Qty 1	SmartSwarm 342™	Ethernet Wzzard Mesh Gateway

#### WZZARD MESH NETWORK SETUP

The Wzzard Mesh Node and Gateway in this kit are preconfigured. If this is the only Wzzard Mesh device in your vicinity, it will need no further configuration. If other Wzzard Mesh gateways or nodes are nearby and unclaimed you will need to claim the gateway and the node. See respective node and gateway manuals for instructions.

### DOWNLOADING THE HVAC MONITOR NODE-RED™ FLOW TO THE GATEWAY

**Note**: router must be in operational and online state in order to add the HVAC application (ie Eth1 must be plugged in).

- 1. Follow the instructions in the Gateway Quick Start Guide to claim your gateway.
- 2. Select **View Devices** from the dropdown menu on the SmartWorx<sup>™</sup> Hub home screen.

B+B SMARTWORX Powered by AD\ANTECH	Home	Help Log off Hello, knelson@advantech-bb.com
Dashboard		
Devices -		
Claim/Release Device		
Technology Providers		
Configuration Profiles		
Password -		
Contact		

3. Select your device from the list of available devices.

Powered by ADNAN		Devices			н	lello, knelson@	Help Log
ashboard Device	es - Users - 1	Technology Providers	Configuration Profiles	Password ·			
Dashboard > Devices > V Manage devices							Download Client
Device ID	Name	Q Search Type	Profile	Provider	Owner	Status	Online
203-01-6500433	203-01-6500433	SmartSwarm 342-Nor	n Cell	Kevin Test		Operational	1
1							
Privacy Policy					C	Advantech B+B Sm	artWorx 2017 v1.4.6.1



4. Select Add/Upgrade Apps.

BIB SMARTWORX Powered by ADVANTECH Help Log off Help Log off Help Log off Help Log off Help Log off										
Dashb	ooard Devices <del>-</del> l	Jsers - Technology Provid	ers Configuration P	Profiles F	Password 👻	Contact				
Dashboard > Devices > Manage Device										
Device	ID 203-01-6500433									
Name	203-01-6500433									
Status	Operational	v		۲	0 9591	SMARTSWARM SOD Serves				
Firmwar	re 2.2.0	• Push								
DeviceT	<b>Type</b> SG30000525-42									
MAC Ad	dress 00:0A:14:86:77:C	6								
Online	1									
Settings	Select	v								
Save	Cancel Histor, A	Add/Upgrade Apps Geo Locat	ion Wzzard Mesh							
Manag	je Apps									
Remo	ve Selected									
	Name	Tag	Туре	Version	Help	Added				
	Wzzard Mesh	Wzzard Mesh	Application	1.0.6		29/03/2018 17:55:17				
	Components-342	Components-342	Component	1.4.0		29/03/2018 17:55:17				
1										

5. Check the box next to HVAC. A list of components to be updated will appear.

	SMA	ARTWORX Advantech	- Sele	ct Applications	i		Hello, knelson@adv	Help Log of antech-bb.com
Dash	nboard	Devices -	Users -	Technology Providers	Configuration Profiles	Password - Co	ontact	
Dashboa	ard > Device	es > Manage Devic	e > Select Appli	cations				
Add/	/Upgrade	Selected	Cancel					
	Name			Тад		Туре	Version	
	DustCL	_				Application	1.0.1	
	NodeR	ED				Application	1.0.10	
	RSMes	ssageBroker				Application	1.0.4	
	Wzzaro	d Mesh				Application	1.0.6	
	Compo	onents-342				Component	1.4.0	
	NodeJ:	S				Component	6.2.1	
	HVAC					Package	1.0.0	1
	NRG					Package	1.0.0	1
	REF					Package	1.0.0	1
1								

#### 6. Click **OK** to accept the download.

Ē		MARTWORX	Select Applications	5			Help Log off Hello, knelson@advantech-bb.com			
Da			Requirements			×				
			a				*			
	Add	/Upgrade Selected	Wzzard HVAC Applicatio	Wzzard HVAC Application						
		Name	~ *							
			File	Version	Size MB	Status	1.0.1			
			Firmware	2.2.0	15.00	0				
			Components	1.4.0	06.00	0	1.0.10			
			NodeRED	1.0.10	00.01	0	1.0.4			
			Endora	1.0.6	02.00	<b>e</b>				
			RSMessageBroker	1.0.4	00.07	<b>e</b>	1.0.6			
			BB.png		00.00	•	1.4.0			
			BB-WSK-HVAC-2.txt	1.0.0	00.08	0	6.2.1			
			Total Download size: 00.09 MB							
					(	OK Cancel	1.0.0			
						Раскаде	1.0.0			

7. Click Add/Upgrade Selected to start the download.

	B+B SMARTWORX Powered by ADVANTECH Select Applications Help Log off Hello, knelson@advantech-bb.com										
Dashbo	ard Devices <del>-</del>	Users -	Technology Providers	Configuration Profiles	Password -	Contact					
	oard > Devices > Manage d/Upgrade Selected	Device > Select	Applications								
	Name		Тад		Туре	Version					
	DustCLI				Application	1.0.1					
	NodeRED				Application	1.0.10					
	RSMessageBroke	r			Application	1.0.4					
	Wzzard Mesh				Application	1.0.6					
	Components-342				Component	1.4.0					
	NodeJS				Component	6.2.1					
۲	HVAC				Package	1.0.0	1				
	NRG				Package	1.0.0	1				

8. The download could take several minutes. To monitor the progress, select **History** from the **Manage Device** screen.

B-B SMARTWORX Powered by ADVANTECH Manage Device Help Log off Hello, knelson@advantech-bb.com												
Dashboard	Devices -	Users <del>-</del>	Technology Providers	Configuration Profiles	Password <del>-</del>	Contact						
Dashboard > De	Dashboard > Devices > Manage Device											
Device ID	203-01-65	00433										
Name	203-01-6	500433										
Status	Operatio	nal	¥		•	SMARTSWARM &						
Firmware	2.2.0		▼ Push									
DeviceType	SG300005	25-42										
MAC Addres	ss 00:0A:14:8	86:77:C6										
Online	1											
Settings	Select		•									
Save C	ancel Histo	bry Add/U	pgrade Apps Geo Locati	on Wzzard Mesh								

9. As each component is updated, it will be marked with a  $\checkmark$  check mark.

Note: "AddNode" commands will show an X if they have already been installed.

Dashboard De	vices -	Users -	Techn	ology Providers	Configuratio	n Profiles	Password -	Contact		_			
ashboard > Devices > M	anage Devic	e > History											
Device Name		203-01-650	0433										
Device ID		203-01-650	0433										
Registered On		29/03/2018	17:45:58										
Last Check In		18/04/2018	19:51:55										
how 10		• er	ntries										
Command	Created	l by		Name	Queued	Comp	leted	Success		Resp	onse		
UploadConfig	203-01-	6500433		2.2.0	18/04/2018 19:51:55	18/04/	2018 19:51:55	*		{"conf	ig":"sw	/m_fir	rewa
UploadConfig	203-01-	6500433		2.2.0	18/04/2018 19:51:45	18/04/	2018 19:51:45	*		{"conf	ig":"sv	/m_fir	rewa
AddFlow	knelson bb.com	@advantech-		HVAC	18/04/2018 19:51:43	4/18/2 PM	018 7:54:07	*		Succe ["fe56	ess, bf71.e	4cfd"	]
GetFlow	knelson bb.com	@advantech-		HVAC	18/04/2018 19:51:43	18/04/	2018 19:51:47	*					
InstallNewApp	knelson bb.com	@advantech-		HVAC	18/04/2018 19:51:43	18/04/	2018 19:51:43	*		Comp	leted		
GetBinaryFile	knelson bb.com	@advantech-			18/04/2018 19:51:43	18/04/	2018 19:51:45	*					
DownloadSettings	knelson bb.com	@advantech-		swm_firewall	18/04/2018 19:51:43	18/04/	2018 19:51:45	*					
DownloadSettings	knelson bb.com	@advantech-		swm_firewall	18/04/2018 19:51:43	18/04/	2018 19:51:44	*					
UninstallApp	knelson bb.com	@advantech-		NRG	18/04/2018 19:45:10	18/04/	2018 19:45:10	*					
GetVersions		6500433			18/04/2018 14:59:01	18/04/	2018 14:59:07	*		{"app:	s": [{"n	ame"	: "R
howing 1 to 10 of 9	8 entries						← Pre	vious 1	2	3	4	5	Next -

Note: If, for some reason all or a portion of the installation fails, repeat the procedure to install the rest of the package.

### HVAC MONITORING KIT

### POINTING THE MQTT DATA TO THE INTERNAL MQTT BROKER

1. From the Manage Device screen, click the Wzzard Mesh application.

	B-B SMARTWORX Powered by ADVANTECH Help Log off Help Log off Help Log off Help Log off Help Log off									
Das	hboard	Devices -	Users +	Technology Providers	Configuration Pro	ofiles Pa	ssword <del>-</del>	Contact		
Dashbo	oard > Devid	es > Manage Devic	e							
Devid	ce ID	203-01-65004	33							
Name	e	203-01-6500	433							
Statu	IS	Operational		¥		٠	Q	SMARTSWARM *		
Firmv	ware	2.2.0		▼ Push						
Devic	еТуре	SG30000525-4	42							
MAC	Address	00:0A:14:86:77	7:C6							
Onlin	e	1								
Settir	ngs	Select		Ŧ						
Sav	ve Car	cel History	Add/Upgrad	de Apps Geo Location	Wzzard Mesh					
Man	age Ap	ps								
	nove Sele									
	Name		Tag		Туре	Version	Help	Added		
	NodeJS	3	Node	eJS	Component	6.2.1		18/04/2018 14:51:22		
	Wzzaro	l Mesh	Wzza	ard Mesh	Application	1.0.6		29/03/2018 17:55:17		
	NodeR	ED	Node	RED	Application	1.0.10		17/04/2018 20:57:46		
	RSMes	sageBroker	RSM	lessageBroker	Application	1.0.4		17/04/2018 20:57:46		
	Compo	nents-342	Com	ponents-342	Component	1.4.0		29/03/2018 17:55:17		

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#### 2. Fill in the **Application Settings** screen as shown and click the **Apply Changes** button:

	Application Sett	ings		
	Device ID	203-01-6500433		
	Application Name	Wzzard Mesh		
MQTT	Version	1.0.6		
	Tag	Wzzard Mesh		
	Save Tag Cance	el Apply Changes	MQTT	* Required Field
			MQTT	
	Host:		192.168.1.1	
	Port:		1883	
	Username:			
	Password:			
	Client ID:		122	*
	Timeout (secs):		60	
	Retry Interval (se	ecs):	10	
	Keep Alive (secs	):	60	
	Reliability:		•	
	Clean Session:			
	Enable TLS:		No	
	Verify Server Cer	rt:		



#### WAKE UP WZZARD™ MESH EDGE NODE

- 1. Attach the external antenna.
- 2. Press and hold the **Config/Status** button for 5 seconds until the Status LED starts blinking.
- 3. Check LED.
- 4. After you have woken the node, the LED will begin to blink. This indicates that the node is attempting to establish a network connection. The LED will cease blinking when a connection is made or after 10 seconds. Press the **Config/Status** LED for approximately 1 second to view the LED status.

LED Indicator	Status
OFF (after button press)	Node is asleep or dead battery.
Slow Blink (1 per second)	Attempting to establish connection with Wzzard Mesh network.
Solid ON	Node is connected to a gateway.
Fast Blink (10 per second)	Firmware update in progress.

### HVAC MONITORING KIT

#### ACCESS Node-RED™ UI IN THE GATEWAY

- 1. Attach the antenna to the Wzzard<sup>™</sup> antenna port on the gateway.
- 2. Attach the Ethernet cable to the ETH0 port on the gateway and the other end to your PC. You will use an Ethernet connection to configure the gateway and to communicate with it.
- 3. Attach the supplied power supply and plug it in.
- 4. Open a browser on your computer and open the Node-RED configuration page. The default address is: **192.168.1.1:1880/ui.** (Chrome or Firefox recommended.)

	Wzzard				
	Wzzard Node Info				
	Dust MAC Address: 001343xxxxxx 0		The software will automatically u	se the Dust MAC Address of the device.	
	Serial No :		Hardware Version :	Model Type :	
	Firmware :			Manufacture Date :	
	Select Cellular Carrier Info for Text and	Email alerts			
	Select Carrier: Select an Option 🗸	Enable Text A	lerts: X Enter Phone # (no dashes) Enable Email	Alerts: X Enter an Email Address	
	Enable Alerts for Air Temp In:	×	Air Temp In Upper Alert	Air Temp In Lower Alert	
	Enable Alerts for Air Temp Out:	×	Air Temp Out Upper Alert	Air Temp Out Lower Alert	
	Enable Alerts for Compressor Current:	×	Compressor Current Upper Alert	Compressor Current Lower Alert	
	Enable Alerts for Fan Current:	×	Fan Current Upper Alert	Fan Current Lower Alert	
	Enable Absolute Temp Differential Alert:	×	Absolute Temperature Differential Under		
	NETWORK HEALTH DASHBOARD				

- 5. The Wzzard Node information values will populate when the node joins the network.
- You can set up a phone number to receive text messages and/or an e-mail address for receiving alerts on this page. For text messaging, you will need to select the cell carrier of the receiving phone. If the carrier is not on the list, select custom, and add the URL of the carrier to the phone number (ie: <u>1-123-2345@txt.abcphone.com</u>). See Appendix A for carrier text addresses. If your carrier is not listed, contact your carrier for the address of their SMS gateway.
- 7. You also can enable or disable alerts as well as setting the trigger values on this page.

## **ADVANTECH**

### HVAC MONITORING KIT

#### **NETWORK HEALTH PAGE**

1. Click the **Network Health** button on the lower left corner of the **Configuration** page. The page below appears. This page shows the status of the network.

E Network H	Health Wzzard
	Paths to Gateway: 1           Ambient Temp         Mesh Network Reliability         Battery Voltage           4         5         6
	72.32       95       100       100         9       100       100       100         100       100       100       100         100       100       100       100         100       100       100       100         100       100       100       100         100       100       100       100         100       100       100       100         100       100       100       100         100       100       100       100         100       100       100       100         100       100       100       100       100         100       100       100       100       100         100       100       100       100       100         100       100       100       100       100       100         100       100       100       100       100       100       100         100       100       100       100       100       100       100       100         100       100       100       100       100       100       100       100         10
	101.0         102.5         102.0         102.00

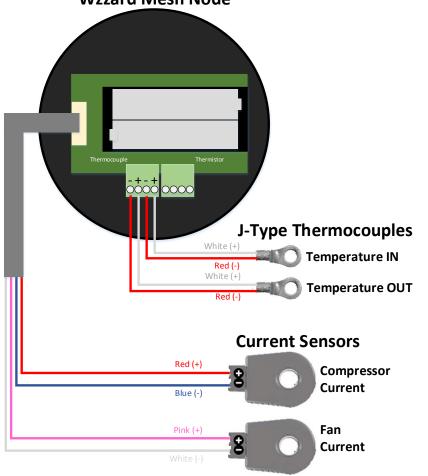
### HVAC MONITORING KIT

#### ATTACHING THE SENSORS ON THE INTELLIGENT EDGE NODES

#### 1. Wire Your Sensors to the Edge Node.

The Wzzard<sup>™</sup> HVAC monitoring kit comes with two AC current sensors and two J-Type thermocouples.

Sensor Wzzard Industrial Node with S&T Cable		Connection
Compressor	Sensor (+) to Stripped & Tinned Cable	RED
Current	Sensor (-) to Stripped & Tinned Cable	BLUE
Fan	Sensor (+) to Stripped & Tinned Cable	PINK
Current	Sensor (-) to Stripped & Tinned Cable	WHITE
Tomp In	Sensor (+) to Internal Terminal Block	1
Temp In	Sensor (-) to Internal Terminal Block	2
Tomp Out	Sensor (+) to Internal Terminal Block	3
Temp Out	Sensor (-) to Internal Terminal Block	4

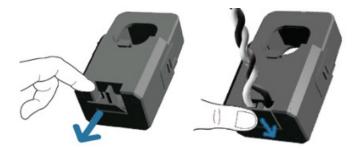


#### Wzzard Mesh Node

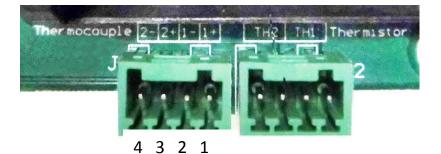


#### **Current Sensors**

- Open the wire protector clamp by pushing it away from the sensor body.
- Attach your wires.
- Close the wire protector clamp.



#### **Temperature Sensors**



- 1 = Thermocouple input #1 positive (+)
- 2 = Thermocouple input #1 negative (-)
- 3 = Thermocouple input #2 positive (+)
- 4 = Thermocouple input #2 negative (-)

## AD\ANTECH

#### 2. Mount Your Sensors.

#### **Current Sensors**

The sensor can be mounted in any position.

Open the clamp release by pushing it away from the sensor body.

Run the wire you are monitoring through the opening in the sensor.

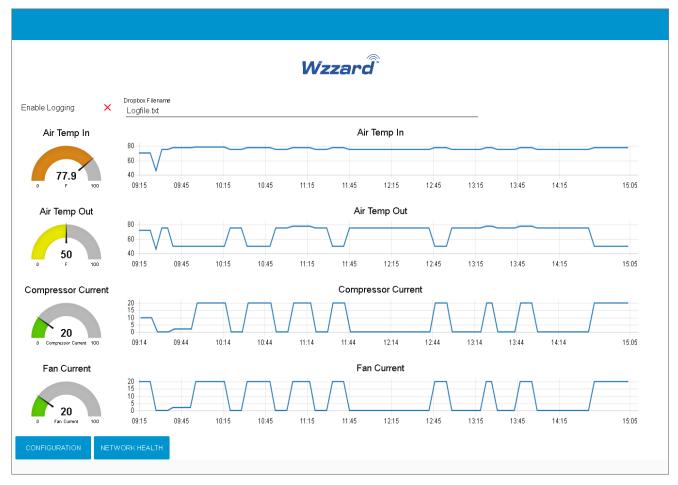


Close the sensor firmly around your wire and ensure that the clamp release has snapped back into place.

## HVAC MONITORING KIT

#### ACCESSING THE DASHBOARD

- 1. Open a browser on your computer and open the Node-RED<sup>™</sup> configuration page. The default address is: **192.168.1.1:1880/ui**
- 2. Click on the **Dashboard** button on the lower left corner of the configuration page.
- 3. The dashboard should look like the following screen.



4. You can switch to the **Configuration** page or **Network Health** page by clicking on their respective buttons at the lower left.

### SETTING UP AN E-MAIL ACCOUNT

- 1. From your browser, open the Node-RED<sup>™</sup> flow at **192.168.1.1:1880**.
- 2. Enter your user name and password. Default is:
  - Username: NodeRED

**ADVANTECH** 

Password: 5mart5warm (set same as the SmartSwarm 342 password).

Node-RED : 10.1.0.2	1 🛪 🖉 Workspace Webmail z M 🗴 🔪	(A)(-)(A)
< → C ☆ 0	0.10.2011880	Q 🕁 🖪 😋 🗉 🖉 😫 🖉 🕴
Apps 🕅 Walkthroug	x: Creatini 🗖 MySQL Python tutoriii 🦻 Paho - Open Source ii 📕 Helio MQTT — Michie 🔛 Simply Modbus - Dati 🧏 Node-RED Dashboard 📒 New folder	Cther bookmarks
Node-RED		The Deploy The Deploy
a filter nodes	Flow 1	+ info debug dashboar %
~ input		*
inject o	SNo at	
catch b	beolygem and bealver and bea	
status b	meg payload	
link O	Text Text Check for Phone no	
	add data mog payload	
mat	mag payload Set message mag to	
http 9	nit 15 msg/h	
websocket o	ar Amos Input 1 ale	
tep		
udp 👌		
~ output	Set message may to	
d debug	ng/h	
o link		Send Email
mqtt	add data	
http	Timeg payload	
response	Input 2 🔤	
Ó websocket		
c tcp	nt 15 mag hayload	
c udp	Text Check for Phone no.	
~ function	add data	
	Check for annal address	
function 9	tead Deck for enail address	
template	Set message of meg to	
delay o	Error Message 1 mag/hour	
tigger 0	No erroll address 🖂	
(A) V	¢	Send Email 🗹

3. Find the green Send Email node on the right; double click on it.

### HVAC MONITORING KIT

		Deploy 🔻
✓ Source AED: 10.10.201         ×		x _ 0 _ x
Node-RED		- Daploy - E
Node-RED      Input     input	Timat Check for ental access	Cancel Dono matt.com
	Server Smtp.gmail.com	n
Chittp response Company of the Caupe - 7 C	Luserid johndoe@gmai	l.com
top     autors     autors     function     where i wan	Password ••••••	1
Inneuron     Inneuron		

4. Enter your **UserID** and **Password** for your e-mail server in the appropriate boxes. (Leave the "To" field blank.)

**Note**: If you are using a G-Mail account, you will need to enable "Less Secure Apps" in the Google security settings. See below.

reating	MySQL Python tutoria	<b>P</b> Paho - Open Source	Hello MQTT — Micha	Simply Modbus - Data	🔫 Node-RED Dashboard	New folder
	Sign-in 8	security				
						Saved passwords
						You have no synced passwords.
ification	s					LEARN MORE
tes						
су						
						Allow less secure apps: ON
activit						Some apps and devices use less secure sign-in technology, which could leave
						your account vulnerable. You can turn off access for these apps (which we recommend) or choose to use them despite the risks.
						recommend) of choose to use them despite the fISKS.
ols						
orage						

5. Click **Done**. Then click the **Deploy** button in the upper right corner of the page.

**Note:** Once you deploy the edited flow, you will have to re-enter any alert settings on the Configuration screen of the Dashboard.

### HVAC MONITORING KIT

### SETTING UP YOUR DROPBOX™ FOR LOGGING

- 1. Log in to your Dropbox account or sign up for a new one.
- 2. Once signed up or logged in:
  - Go to https://www.dropbox.com/developers
  - Click **Create your app** box in the center of the screen.
  - Select Dropbox API app.
  - Choose an appropriate answer as to whether your node should be limited to its own folder or given full access. (TIP: This can be changed later, so select **Yes** to restrict the application while testing might be a good idea.)
  - Choose an app name.
  - Click Create app.

The subsequent app page will contain the App Key, App Secret and a 'Generate' button to produce a suitable 'access token'. Save these strings so you can enter them into the application later.

- 3. From your browser, open the Node-RED<sup>™</sup> flow at **192.168.1.1:1880**.
- 6. Enter your user name and password. Default is:

#### Username: NodeRED

Password: 5mart5warm (set same as the SmartSwarm 342 password).

2 Node-RD:19218811 ×	Kevin — D X
← → C △ ④ 192.168.11.11880/#10w/9b17186.fae2c	☆ 🗵 🗄
Rode-RED	─ Deploy ▼
A filter nodes     HAC_342	+
v input	•
Inject     Logging Into	
I catch Clock timestamp 0 of Get Date	
t status o	
Set filename	
http Default Dropbox Filename + + Set Default Filename + Example Dropbox Filename + + + + + + + + + + + + + + + + + + +	
websocket	
🕴 top o	
de udp	
aws mett     Ping to validate Dropbox connection     Set pingGood False	
madbustep D Ping dropbox D Create Network Message msg payload	
N serial o	
v output Log data to file	
debug 👔 💭 🗘 timestamp to 🛶 of Check Logging Enable of Build message of Write Local File	
fink	Write Local Filename
	White Eddarf Herland
Chttp response 🚷	T
vetsocket	
udp 🔅 [get] /http://10.10.2011880/ —4x/> Configuration Logo — http ?	
	ename
Ville Local File	

4. Locate **Log data to file**, then scroll right and locate the blue **Write Local Filename** node; double click on it.

		and the subscript of	0.000	al X
			무 ☆	0 :
ordes RED				
Q.Itter nodes	Edit dropbox ou	it node		
v input - HAC_342			Cancel	Done
tapos				
catch Def. http://sila.org/andio/sil	Dropbox	Dropbox	• •	
ged indputs 15.2211 1980 C - To Stations Hall Logic - Hip Status - ged indputs 15.2211 1980 C - To Power Management Logic - Hip	Filename	Filename		
	Local Filename	timestamps.txt	/	
mqtt	Name	Write Remote file		
http://www.coging.mo				
websocket b Baselangto - 4 Con Data				
top top the the top to top top				
✓ output				
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5. Then click on the **pencil icon** next to the Dropbox text window.

## HVAC MONITORING KIT

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Node-RED	
A filter nodes HAC_342	dropbox out > Add new dropbox-config config node
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image: state	On the subsequent page, click the button to generated an access token. Copy it into the box above.
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- 6. Fill in the App Key, App Secret, and Access Token that you got from Dropbox in their respective fields. (See yellow box for more information.)
- 7. Click **Update**, then **Done** again to close both windows.
- 8. Click the **Deploy** button in the upper right corner of the page.
- 9. Enable logging on the Dashboard web page.

**Note:** Once you deploy the edited flow, you will have to re-enter any alert settings on the Configuration screen of the Dashboard.

# **ADVANTECH**

## HVAC MONITORING KIT

### APPENDIX A. CARRIER TEXT MESSAGING URL ADDRESSES

U.S.A Carriers	
Alltel	[10-digit phone number]@message.alltel.com Example: 1234567890@message.alltel.com
AT&T (formerly Cingular)	[10-digit phone number]@txt.att.net [10-digit phone number]@cingularme.com Example: 1234567890@txt.att.net
Boost Mobile	[10-digit phone number]@myboostmobile.com Example: 1234567890@myboostmobile.com
Nextel (now Sprint Nextel)	[10-digit telephone number]@messaging.nextel.com Example: 1234567890@messaging.nextel.com
Sprint PCS (now Sprint Nextel)	[10-digit phone number]@messaging.sprintpcs.com Example: 1234567890@messaging.sprintpcs.com
T-Mobile	[10-digit phone number]@tmomail.net Example: 1234567890@tmomail.net
US Cellular	[10-digit phone number]email.uscc.net (SMS) Example: 1234567890@email.uscc.net
Verizon	[10-digit phone number]@vtext.com Example: 1234567890@vtext.com
Virgin Mobile USA	[10-digit phone number]@vmobl.com Example: 1234567890@vmobl.com

International Carriers	Email to SMS Gateway
7-11 Speakout (USA GSM)	number@cingularme.com
Airtel (Karnataka, India)	number@airtelkk.com
Airtel Wireless (Montana, USA)	number@sms.airtelmontana.com
Alaska Communications Systems	number@msg.acsalaska.com
Aql	number@text.aql.com
AT&T Enterprise Paging	number@page.att.net
BigRedGiant Mobile Solutions	number@tachyonsms.co.uk
Bell Mobility & Solo Mobile (Canada)	number@txt.bell.ca
BPL Mobile (Mumbai, India)	number@bplmobile.com
Cellular One (Dobson)	number@mobile.celloneusa.com
Cingular (Postpaid)	number@cingularme.com
Centennial Wireless	number@cwemail.com
Cingular (GoPhone prepaid)	number@cingularme.com (SMS)
Claro (Brasil)	number@clarotorpedo.com.br
Claro (Nicaragua)	number@ideasclaro-ca.com
Comcel	number@comcel.com.co
Cricket	number@sms.mycricket.com (SMS)
СТІ	number@sms.ctimovil.com.ar
Emtel (Mauritius)	number@emtelworld.net
Fido (Canada)	number@fido.ca
General Communications Inc.	number@msg.gci.net

## HVAC MONITORING KIT

Globalstar (satellite)	number@msg.globalstarusa.com
Helio	number@messaging.sprintpcs.com
Illinois Valley Cellular	number@ivctext.com
Iridium (satellite)	number@msg.iridium.com
lusacell	number@rek2.com.mx
i wireless	number.iws@iwspcs.net
Koodo Mobile (Canada)	number@msg.koodomobile.com
LMT (Latvia)	number@sms.lmt.lv
Meteor (Ireland)	number@sms.mymeteor.ie
Mero Mobile (Nepal)	977number@sms.spicenepal.com
MetroPCS	number@mymetropcs.com
Movicom (Argentina)	number@sms.movistar.net.ar
Mobitel (Sri Lanka)	number@sms.mobitel.lk
Movistar (Colombia)	number@movistar.com.co
MTN (South Africa)	number@sms.co.za
MTS (Canada)	number@text.mtsmobility.com
Nextel (United States)	number@messaging.nextel.com
Nextel (Argentina)	TwoWay.11 <i>number</i> @nextel.net.ar
Orange Polska (Poland)	9digit@orange.pl
Personal (Argentina)	number@alertas.personal.com.ar
Plus GSM (Poland)	+48number@text.plusgsm.pl
President's Choice (Canada)	number@txt.bell.ca
Qwest	number@qwestmp.com
Rogers (Canada)	number@pcs.rogers.com
SL Interactive (Australia)	number@slinteractive.com.au
Sasktel (Canada)	number@sms.sasktel.com
Setar Mobile email (Aruba)	297+number@mas.aw
Suncom	number@tms.suncom.com
T-Mobile (Austria)	number@sms.t-mobile.at
T-Mobile (UK)	number@t-mobile.uk.net
Telus Mobility (Canada)	number@msg.telus.com
Thumb Cellular	number@sms.thumbcellular.com
Tigo (Formerly Ola)	number@sms.tigo.com.co
Tracfone (prepaid)	number@mmst5.tracfone.com
Unicel	number@utext.com
Virgin Mobile (Canada)	number@vmobile.ca
Vodacom (South Africa)	number@voda.co.za
Vodafone (Italy)	number@sms.vodafone.it
YCC	number@sms.ycc.ru
MobiPCS (Hawaii only)	number@mobipcs.net

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